

To: Green, Jay-M[Green.Jay-M@epa.gov]
From: Steve Brittle
Sent: Tue 6/13/2017 11:44:53 PM
Subject: Re: Suspected Criminal Behavior by Principals of Hickman's Family Farms, Inc.
[Hickmans 1st supplemental disclosure statement.pdf](#)
[Hickmans Estimation of Emissions from Arizona Layer Sites Heber 4-7-17.pdf](#)
[Hickmans Replacement Continuous Release Reporting Forms- Hickman Family Farms.pdf](#)
[Hickmans Summary of NH3 and H2S preliminary Modeling for Hickman.doc](#)
[Hickmans Phalen depo Hickman'S Egg Ranch 30\(b\)\(6\) - Robert Phalen \(Condensed\).pdf](#)

VIA EMAIL TO Green.Jay-M@epa.gov

U.S. CID EPA
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San Francisco, CA 94105-3901

Re: Suspected Criminal Behavior by Principals of Hickman's Family Farms, Inc.

Don't Waste Arizona (DWAZ) is a non-profit organization based in Phoenix, Arizona that has been extensively involved with EPCRA, the Emergency Planning and Community Right to Know Act. DWAZ has conducted a significant amount of citizen suit civil enforcement of EPCRA in the 1990s, about 90 cases, but these previous enforcement actions were for violations of Section 312 of EPCRA (failure to file Tier Two (facility hazardous chemical inventory) reports and violations of Section 313, (failure to file Form R reports) the Toxics Release Inventory. In almost every one of those enforcement cases, the defendant came into compliance and a penalty was assessed. DWAZ had to litigate only a couple of the cases in order to get the defendant to report, but succeeded. Now, DWAZ has a defendant that abjectly refuses, evidently, to come into compliance despite knowing the statutory requirements and that this knowing failure to report is a criminal offense.

As president of DWAZ, I also held a seat on the Maricopa County LEPC for ten years, and in that time participated in and received ammonia safety training, ALOHA and CAMEO training. And I served on the subcommittee that reviewed and updated the Maricopa County LEPC emergency plan. DWAZ also understands that reports required under EPCRA 304 are the triggers for emergency response and planning, so a failure to comply damages not only locally affected people, but the entire chemical emergency response and preparedness system. Without an accurate report of the total amount of ammonia released, proper modeling and emergency response is hampered. The EPCRA citizen suit only allows a suit for failure to file a written follow up report, not a failure to report a release to the SERC or LEPC.

In 2015, DWAZ became aware of a problem with ammonia concentrations in the ambient air at locations near the Hickman's Family Farms Inc. facilities at Arlington and Tonopah, small communities in western Maricopa County. Specifically, upon exiting an evening meeting at Arlington Elementary School, three miles west of the Hickman's Arlington facility, the concentration of ammonia in the ambient air was so high that it

burned eyes and respiratory systems. Upon further investigation, it became quite clear that the Hickman's facilities should have been filing written follow up reports for ammonia releases exceeding the 100 pound reporting threshold.

In May 2016, Don't Waste Arizona sent citizen suit notice to Hickman's Family Farms, Inc., a CAFO (concentrated animal feed operation) with millions of chickens, apparently the largest facilities in terms of chicken population in the USA, for violating EPCRA Section 304, alleging their failure to file the written follow up report for ammonia releases from their facilities. DWAZ filed suit in federal district court, and has proceeded. We hired the nation's #1 expert on CAFOs and their releases of ammonia, Dr. Al Heber. He was tasked in a cooperative effort with industry, EPA, and academia with determining the expected emissions rates of ammonia and hydrogen sulfide from CAFOs. DWAZ hired him to determine if the Hickman's facilities emitted greater than the 100 pound reporting threshold for ammonia releases. (His complete April 2017 report is attached.)

His report indicates that these Hickman's Family Farms facilities are releasing thousands of pounds of ammonia daily, a minimum of 4100 pounds/day for the Tonopah facility, and 5400 pounds/day, for the Arlington facility and **likely quite a bit more.**

"A reasonable estimate would be the average of the 0.79 g/d-hen reported by Zhao et al. (2016b) and the 0.29 g/d-hen reported by Ni et al., (2010), or 0.54 g/d-hen. At this hen-specific emission rate, 84,000 hens would emit 100 lb/day. Based on this value and the maximum reported populations, the laying hens at the Arlington and Tonopah facilities would emit 49 and 40 times the reportable quantity of 100 lb/day plus the emissions from the pullet houses and manure storage and treatment. The laying hens at the Arlington North and South facilities would emit 23.7 and 17.7 times the reportable quantity of 100 lb/day.

The emissions are so far above the reporting threshold that fine-tuning of the estimate is unnecessary. However, the estimate is very conservative for the following reasons:

- 1. The pullets at Arlington facility were not considered in the estimate.*
- 2. The average emission rates from other studies was used whereas EPCRA indicates maximum emissions during any 24-hour period.*
- 3. The ammonia emission from the manure dryer was not included in the estimate.*
- 4. The effect of warmer temperatures in Arizona as compared with Indiana, Ohio, Pennsylvania and Iowa were not considered. "*

The Heber report was disclosed to the defendants in early May 2017.

We can now show that human health and safety are threatened by concentrations of ammonia in the affected communities. The Arizona Department of Environmental Quality, which houses the State Emergency Response Commission, modeled the dispersion and likely concentrations of ammonia from these facilities' ammonia releases, but modeled release amounts that are far less than what is actually occurring.

(See attached.) ADEQ modeled 1910 pounds/day of ammonia releases from the Tonopah facility and 3653 pounds/day of ammonia releases from the Arlington facility. ADEQ also did not include any releases of ammonia from the rotary dryer operated at the Arlington facility, which could in itself be hundreds of pounds of ammonia/day. It stands to reason that the rotary dryer would be a significant source of ammonia releases. The manure from millions of chickens is hauled to the Arlington facility and stockpiled on the ground. Then it is fed into the rotary dryer, which heats the manure to dry it, preparatory to a manure pellet making process at the same Arlington facility.

If the ADEQ model were to use the inputs of the corrected, higher, amounts of ammonia being released by these facilities, the footprint of the ammonia would increase, and at higher concentrations, further from the source. It is our understanding that these two Hickman's facilities are among the largest in terms of chicken population, in the USA. Each day, every day, these facilities each release more ammonia than the total of all other ammonia releases in Maricopa County history.

There is a very strong likelihood that the nearby public is at a health risk. The ADEQ modeling report also is erroneous in claiming the nearest population is 1.2 km from the east side of the Tonopah facility. Residential areas and a town center/business district are immediately adjacent. There are reports that the children at the Arlington Elementary School cannot play outside on some days because it makes them ill.

When I use the ammonia release figures from the Heber report and input them into a ALOHA (Aerial Locations of Hazardous Atmospheres), an emergency response software tool that calculates and quickly models a release of hazardous chemicals to determine if evacuation or shelter in place strategies are warranted, I see levels above the threat level for ammonia exposure. In a conventional response to a chemical incident involving ammonia, the public would be moved out of an area with these concentrations of ammonia in the air.

People have been complaining to government environmental agencies for many months about odors, including ammonia odors. Indeed, people have also been complaining of symptoms consistent with chronic exposure to ammonia. Inhalation of ammonia may cause nasopharyngeal and tracheal burns, bronchiolar and alveolar edema, and airway destruction resulting in respiratory distress or failure. Their only real source of public information about the total amounts of ammonia being released by these Hickman's facilities would be written follow up reports.

The ATSDR has set a Minimal Risk Level (MRL) chronic exposure standard of 0.1ppm (72 µg/3) for 365-day chronic exposure to ammonia, and even the ADEQ modeling using the lower figures shows an exceedance of that in Tonopah and Arlington near these Hickman's facilities. (See <http://www.atsdr.cdc.gov/toxprofiles/tp126-c2.pdf>)

While the ADEQ modeling using the understated release calculations shows a possible exceedance of the acute-duration inhalation exposure (14 days or less) to ammonia, which is 1.7ppm, or 1,224 µg/3, **using the higher amounts reported by Dr. Heber, there is no question that there is an exceedance of this standard.**

Yet, fully aware of a nationally recognized expert's calculations, and admitting freely the facilities exceed the 100 pound threshold for reporting, Hickman's Family Farms still have not filed the delinquent written follow up reports or any since the first DWAZ notice of intent to sue, which was sent in May 2016, alleging five years of violations at the Hickman's Family Farms' Arlington facilities, and almost two years at the Hickman's Family Farms' Tonopah facility. Now, over a year since Hickman's Family Farms was notified of its obligations, it **still refuses to file these written follow up reports. The defendants have also been aware of the criminal liability for months.** They have no intentions of complying, evidently. During all the other EPCRA cases, DWAZ never saw this sort of behavior, where a defendant knowingly refuses to comply, and at such extraordinary levels above the reportable quantity, so much so that there might be a public health threat.

The deposition of their environmental manager (Attached) made it clear that no one on staff at Hickman's knew how to calculate the ammonia emissions, no one knew about the Section 304 written follow up reports, or much of what is required by regulations. There also seems to be no intent to hire someone who can do the technical work to calculate the ammonia emissions. This is a multi-million dollar company operating in three states that can easily afford to hire the work done, if necessary, and it is required to have knowledge of this information by the General Duty Clause, CAA 112 r 1. It would appear that not knowing how to calculate the ammonia releases is the goal of Hickman's, and that somehow excuses no report or a vastly understated one.

We found out per Hickman's Family Farms disclosure in the lawsuit that in 2006, Hickman's Family Farms sent a letter to the National Response Center, the Arizona State Emergency Response Commission, and the Maricopa County LEPC that stated that Hickman's Family Farms might have exceeded the 100 pound reporting requirement for EPCRA and CERCLA. (Attached) This is not the correct procedure, which requires making a telephone call notifying the National Response Center, and the filing of a written report with USEPA, and annual updates, which never happened. But it indicates culpability. Indeed, Hickman's Family Farms monitors ammonia levels in its barns and vents the ammonia to the outside air automatically when a 25ppm of ammonia threshold is reached. (Ammonia at levels above 25ppm can blind the chickens, so the industry group Hickman's Family Farms belongs to, United Egg Producers, requires this.)

In response to what we have already done regarding the litigation, Hickman's Family Farms filed in March 2017 a continuous release report (a CERCLA 103 report) that vastly understates these facilities' ammonia releases, thinking that the continuous release reports takes care of all their EPCRA written follow up reporting obligations, even though it was filed 20 years too late. A close examination indicates that the Hickman's continuous release report (Attached.) was not filled out correctly or completely.

There are no separate listings of ammonia releases for:

1) Fluctuations in the chicken populations vary depending on the cycle – hundreds of thousands are euthanized at a time, so emissions will vary with these population fluctuations, and the ammonia emissions from the number of chickens culled each time is many times more than the population threshold to require ammonia release reporting of 100 pounds.

2) At Tonopah and Arlington, the chicken population ramped up as the facilities added more barns and stocked them, but this is not reflected in their continuous release report. All of the barns and bird populations did not happen all at once, but their continuous release reports claims this.

3) Seasonal temperature variations will change how much ammonia is volatilized, but this is not reflected in their continuous release report.

4) The emissions of ammonia from the rotary dryer are not accounted for, and as it doesn't operate the same number of hours/day, this amount is highly variable. This is not reflected in their continuous release report, which claims a "ground based" release.

5) Ammonia released from the manure piles stored on the ground at Arlington as manure from other facilities is trucked there and stockpiled for the rotary dryer are not accounted for. This is not reflected in their continuous release report, which claims a "ground based" release.

6) Manure is not removed from the barns daily. It is removed periodically, but that process would cause a large increase in daily ammonia release amounts.

7) When the ammonia concentrations inside the barns reach 25ppm, vents open automatically that release the ammonia to the outside air. This is not reflected in their continuous release report, which claims a "ground based" release.

8) There is no calculation for the ammonia being released through the east side of the barns, an enormous opening that is 84 feet wide by 3-4 stories tall – with fans blowing from west to east continuously.

Yet the continuous release report provided by EPA notes in more than one place,

"This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occurs simultaneously. To the extent that a hazardous substance is released from your facility from different sources and different frequencies, you may adjust the SSI trigger as appropriate so that it more accurately reflects the frequency and quantity of the released. The SSI trigger in the final analysis must reflect the upper bound of the normal range of this release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period

Again, it is our understanding that knowingly providing EPA with false information is a criminal matter.

And despite our expert's report showing much, much higher levels of ammonia releases and Hickman's not offering or providing anyone to dispute the expert's analysis, Hickman's has no intentions of amending their continuous release reports, and it has made that clear in statements and even in an offer to settle the case without ever filing these EPCRA 304 written follow up reports. These indicate a knowing and informed decision to not comply with the law. And they certainly don't want to tell the public what their actual ammonia releases are, despite it being their federal right.

We request your investigation of these matters. If there is any other information you might need, please do not hesitate to contact me via email at smbrittle@yahoo.com, or by telephone at 602-881-3305.

Sincerely,

Stephen M. Brittle

President

Don't Waste Arizona

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